

Comparison of Surgical Intervention in Primary and Recurrent Thyroid Cancer

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Abstract: Objective To compare surgical method for the primary and secondary thyroid cancer. **Methods** Among thyroid cancer patients, 71 cases of primary thyroid carcinoma, 61 cases of recurrent thyroid carcinoma, different surgical methods were compared. **Results** After χ^2 test showed: $\chi^2 = 7.21$, $P < 0.05$, which means two treatment modalities are statistically significant different. Indication of primary and recurrent thyroid cancer thyroid cancer surgery between approaches has significant difference. **Conclusion** In practice, the primary thyroid cancer radical surgery should be based on the principle of recurrent thyroid cancer and it should be possible to cure.

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Primary thyroid carcinoma (primary thyroid carcinoma, PTC) is the most common thyroid cancer, accounting for about 1% of systemic cancer [1], there is an upward trend in recent years, the incidence and age of onset is getting younger [2]. In recent years, the surgical treatment of thyroid cancer tends to specification, but the first postoperative residual primary cancer and recurrence remains common, often requiring reoperation. Our primary and recurrent thyroid cancer surgical methods were compared, the results reported as follows:

1 Materials and Methods

1.1 The study

1.1.1 Primary thyroid cancer patients group were 71 cases, in which were 19 males and 52 females, age group of 20 to 78 years (20 to 30 years old, 28 people, 31 to 40 years old 18 people, 41 to 50 years 9 people, 51 aged 60 years 6 people, 60 and years and above 10 people), with an average 36.77 years, of which <35 years of age accounted for 53.52% (38/71), > 36 years of age accounted for 46.48% (33/71). Clinical manifestations starting texture is hard and fixed neck mass in 70 cases, 2 cases of cervical lymph nodes, with pain in 4 cases, 4 cases with hoarseness. Onset of symptoms to treatment time of 1 day to 10 years. Auxiliary 50 cases of B-ultrasound examination were expressed as mass, surface uneven, cervical lymphadenopathy 23 cases (18 cases of pathological lymph node metastasis), compression symptoms in 12 cases. Pathological examination revealed: papillary carcinoma 65 cases (91.55%), follicular carcinoma in 2 cases (2.82%), medullary carcinoma in 2 cases (2.82%), undifferentiated carcinoma in 1 case (1.41%), atypical adenomatous malignant one case (1.41%). And, with cervical lymph node metastasis in 12 cases (16.90%), with both lung metastases in 2 cases (2.82%), papillary adenocarcinoma, follicular

carcinoma in 1 case.

1.1.2 Recurrent thyroid cancer, the group of 61 patients, 27 males and 34 females, aged 8 to 65 years (20 to 30 years old 24 people, 16 people aged 31 to 40, 41 to 50 years old 7 people, 51 ~ 60 years old 2 people, 60 people over the age of 12), with an average 33.6 years, of which <35 years of age accounted for 55.74% (34/61), > 36 years of age accounted for 44.26% (27/61). All patients were diagnosed for the first time after thyroid surgery and treatment of thyroid cancer. Among them, 54 cases of papillary thyroid carcinoma, follicular carcinoma in 8 cases, mixed tumor in 3 cases. First operation diagnosis: nodular goiter in 27 cases, 34 cases of thyroid adenoma. OK subtotal thyroidectomy 45 cases (73.77%), the side lobe subtotal 13 cases (21.31%), isthmus tumor resection in 3 cases (4.92%), again with preoperative B-ultrasonography, CT examination confirmed the ipsilateral thyroid tissue Residues.

1.2 Surgical procedures

1.2.1 Primary thyroid cancer surgical approach 71 cases underwent surgery, surgical procedures including thyroid surgery itself and the neck lymph node dissection. The clinical characteristics of the tumor resection range to choose: (a) subtotal resection gland: post-operative pathological diagnosis of isolated papillary micro carcinoma; (2) plus the isthmus lobe resection: tumor diameter $\leq 1.5\text{cm}$, clear limited by leaf; (3) near total resection: tumor diameter $> 1.5\text{cm}$, wider side papillary carcinoma with lymph node metastasis; (4) total thyroidectomy for highly invasive papillary, follicular carcinoma, clear multifocal, swollen lymph nodes on both sides, and neck tumors invade surrounding tissues or distant metastasis [1].

1.2.2 recurrent thyroid cancer surgical reoperation time again for the first time after 7 days

to four months, an average of 26 days. 61 usual routine tracheal ago, recurrent laryngeal nerve peripheral lymphoid tissue dissection, in which the nine patients also underwent modified radical. Three cases of vocal cord paralysis patients, intraoperative recurrent laryngeal nerve has been found in two patients cut a patient recurrent laryngeal nerve was sutured, be dissected release. (1) Grottoes plus isthmus resection: the side of thyroid cancer without lymph node metastasis; (2) intraoperative findings and Grottoes anterior muscle adhesions, it should be part of the muscle adhesions resection. (3) isthmus cancer intraoperative exploration Futaba, without nodules, possible residual isthmus and bilateral lobe

subtotal or near total resection. (4) of the existing conventional cervical lymph node metastasis underwent modified radical neck dissection.

1.3 Statistical analysis was performed using SPSS15.0 statistical software for analysis, the comparison between the data lines $\times 2$ test, with $P < 0.05$ was considered statistically significant.

2 Results of primary and recurrent thyroid cancer surgery comparison: two sets of data were $\times 2$ test showed: $\times 2 = 7.21$, $P < 0.05$, statistically significant difference. Indicate primary and recurrent thyroid cancer thyroid cancer surgery between obviously different ways. As illustrated in Table 1.

Table 1. Comparison of primary and recurrent thyroid cancer

Surgical approach	Primary thyroid cancer	Recurrent thyroid cancer	Total (case)
Gland subtotal resection (case)	1	0	1
Lobe plus isthmus resection (case)	1	49	50
Near total resection (case)	1	7	8
Total thyroidectomy (case)	1	2	3
Eradication of thyroid cancer surgery (case)	61	2	63
Eradication of thyroid cancer surgery lobectomy and lymph node dissection (case)	6	1	7
Total number (case)	71	61	132

3 Discussion

Primary thyroid cancer treatment requires radical cancer surgery based on the principle, reduce the relapse rate, reduced reoperation rate and prolong survival, relieve the patient from the point of view of physical and psychological burden [3]. Thyroid tissue rich in blood vessels and lymphatic vessels, cancer cells through the blood and lymph node metastasis Road. Follicular carcinoma papillary carcinoma is more likely to occur than the transfer of blood. Distant metastasis mainly transferred to the lungs, bones and liver. Our study found that, compared with lung X-ray CT lung metastases found in more sensitive areas, 71 cases of primary thyroid carcinoma, with both lung metastases in 6 cases, 6 cases of thyroid cancer underwent radical surgery plus lung metastases resection (lobectomy). Lung metastasis was 8.45% (6/71), there are two kinds of forms of lung metastasis, fine dot-shaped and localized pulmonary infiltrates.

Since the level of awareness and technical conditions and other factors, many of thyroid cancer primary tumor and lymph node metastases cleared sufficiently standardized, resulting in residual and recurrent cancer. Reported recurrent thyroid cancer surgery residual tumor rate of 42% to 65% [4]. Recurrent thyroid cancer surgery should not delay, preferably not more than three months, the surgical

approach should be based on the first surgical procedure, the patient's condition and pathological type checking comprehensive analysis. Reoperation when the first full anatomy revealed recurrent laryngeal nerve is more important. After the recurrent laryngeal nerve anatomy clear, both to protect them from damage, but also at the same time ensure the complete removal of the lesion.

Because primary and recurrent thyroid cancer surgery principles and goals are different, so the way both in the surgery there is a big difference. In practice, the primary thyroid cancer radical surgery should be based on the principle of recurrent thyroid cancer; it should be possible to cure.

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